

JAN 24 2005

**Amendments to the Claims:**

The following listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

- 1.-2. (Canceled)
3. (Currently amended) ~~The vaccine of claim 1~~ A vaccine comprising at least one isolated microorganism or living or dead cells thereof wherein the microorganism is selected from the group consisting of: *Streptococcus bovis* [( ) ] strain [ : ] SbR1 [ ( ) ] [( ) ] Accession number: NM99/04455 [ ( ) ], *Streptococcus equinus* [( ) ] strain [ : ] SER1 [ ( ) ] [( ) ] Accession number: NM99/04456 [ ( ) ], *Streptococcus equinus* [( ) ] strain [ : ] SER2 [ ( ) ] [( ) ] Accession number: NM99/04457 [ ( ) ], *Selenomonas ruminantium* [( ) ] strain [ : ] SRR1 [ ( ) ] [( ) ] Accession number: NM99/04458 [ ( ) ], *Selenomonas ruminantium* [( ) ] strain [ : ] SRR3 [ ( ) ] [( ) ] Accession number: NM99/04460 [ ( ) ], *Clostridium vitulinus* [( ) ] strain [ : ] LVR3 [ ( ) ] [( ) ] Accession number: NM99/04461 [ ( ) ], *Clostridium vitulinus* [( ) ] strain [ : ] LVR4 [ ( ) ] [( ) ] Accession number: NM99/04462 [ ( ) ], *Prevotella* isolates LAB01 [( ) ] Accession number: NM00/12630 [ ( ) ] and LAB03 [( ) ] Accession number: NM00/12632 [ ( ) ], *Bacteroides* isolates LAB07 [( ) ] Accession number: NM00/12636 [ ( ) ] and LAB05 [( ) ] Accession number: NM00/12634 [ ( ) ], non-dextran slime producing *Streptococcus* isolate LAB04 [( ) ] Accession number: NM00/12633 [ ( ) ] and non-slime producing lactic acid bacterial isolates LAB02 [( ) ] Accession number: NM00/12631 [ ( ) ], LAB06 [( ) ] Accession number: NM00/12635 [ ( ) ] and LAB08 [( ) ] Accession number: NM00/12637 [ ( ) ].
4. (Canceled)
5. (Currently Amended) The vaccine of claim ~~1~~ 3, wherein said dead cells are intact cells.
6. (Canceled)
7. (Canceled)

8. (Currently Amended) The vaccine of claim ~~13~~, wherein the vaccine is formulated for administration via intramuscular, subcutaneous, or inhalation, ~~topical or other parenteral routes~~.
9. (Currently amended) A pharmaceutical composition comprising the vaccine composition of claim 3 and a pharmaceutically acceptable carrier, adjuvant and/or diluent ~~and at least one isolated microorganism or living or dead cells thereof, wherein said microorganism, when living, is capable of producing lactic acid within the gut of a monogastric, herbivore or ruminant animal, wherein said microorganism is selected from the group consisting of: Clostridium species, Prevotella species Bacteroides isolates LAB07 [(())Accession number: NM00/12636[(())] and LAB05 [(())Accession number: NM00/12634[(())], Enterococcus species, Selenomonas ruminantium, non-dextran slime producing Streptococcus equinus, Streptococcus bovis [(())strain[(:)] Sbr1[(())] [(())Accession number: NM99/04455[(())] and non-slime producing lactic acid bacterial isolates~~, wherein said pharmaceutical composition is effective for the prevention of lactic acidosis in said monogastric, herbivore, or ruminant animal.
- 10.-14. (Canceled)
15. (Previously presented) The pharmaceutical composition according to claim 9, further comprising at least one cytokine.
16. (Currently Amended) A method for inducing an immune response against lactic acidosis in a vertebrate, comprising administering intramuscularly, subcutaneously, or via inhalation to said vertebrate an immunologically effective amount of the vaccine in accordance with claim ~~13~~, ~~or a pharmaceutical composition in accordance with claim 10~~.
17. (Previously presented) A method according to claim 16, further comprising administering at least one cytokine.
18. (Currently Amended) A method for inducing an immune response against lactic acidosis in a vertebrate, comprising administering to said vertebrate an immunologically effective amount of the pharmaceutical composition according to claim 9 ~~the vaccine according to claim 1~~.

19. (Currently Amended) A method for the treatment and/or prophylaxis of lactic acidosis in a vertebrate in need of said treatment and/or prophylaxis, wherein said method comprises administering intramuscularly, subcutaneously, or via inhalation to said vertebrate a therapeutically effective amount of the vaccine in accordance with claim ~~13~~, ~~or a pharmaceutical composition in accordance with claim 10~~.
20. (Previously presented) The method of claim 19, wherein said method further comprises the administration of an active agent, wherein said active agent is selected from the group consisting of: antibiotics, enzyme preparations, clay preparations, compounds which slow the digesta flow, prebiotics and probiotics.
21. (Currently Amended) A method for the treatment and/or prophylaxis of lactic acidosis in a vertebrate in need of said treatment and/or prophylaxis, wherein said method comprises administering intramuscularly, subcutaneously, or via inhalation to said vertebrate a therapeutically effective amount of ~~the vaccine of claim 1~~ a pharmaceutical composition according to claim 9.
- 22.-51. (Canceled)
52. (Currently amended) An isolated culture of at least one microorganism selected from the group consisting of: *Streptococcus bovis* [(Q)]strain[:]] SbR1[(D)] [(Q)]Accession number: NM99/04455[(D)], *Streptococcus equinus* [(Q)]strain[:]] SER1[(D)] [(Q)]Accession number: NM99/04456[(D)], *Streptococcus equinus* [(Q)]strain[:]] SER2[(D)] [(Q)]Accession number: NM99/04457[(D)], *Selenomonas ruminantium* [(Q)]strain[:]] SRR1[(D)] [(Q)]Accession number: NM99/04458[(D)], *Selenomonas ruminantium* [(Q)]strain[:]] SRR3[(D)] [(Q)]Accession number: NM99/04460[(D)], *Clostridium vitulinus* [(Q)]strain[:]] LVR3[(D)] [(Q)]Accession number: NM99/04461[(D)], *Clostridium vitulinus* [(Q)]strain[:]] LVR4[(D)] [(Q)]Accession number: NM99/04462[(D)], *Prevotella* isolates LAB01 [(Q)]Accession number: NM00/12630[(D)] and LAB03 [(Q)]Accession number: NIM00/12632[(D)], *Bacteroides* isolates LAB07 [(Q)]Accession number: NM00/12636[(D)] and LAB05 [(Q)]Accession number: NM00/12634[(D)], non-dextran slime producing *Streptococcus* isolate LAB04 [(Q)]Accession number: NM00/12633[(D)] and

non-slime producing lactic acid bacterial isolates LAB02 [Accession number:  
NM00/12631], LAB06 [Accession number: NM00/12635] and LAB08 [Accession  
number: NM00/12637].

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Serial No. 09/786,253  
Attorney Docket No. 01-179

January 24, 2006